

**Effect of Steroids Therapy on Serum
levels of Anticardiolipin Antibodies (IgG)
in Children and Adolescents with
Intractable Epilepsy**

Thesis

Submitted for Partial Fulfillment of Master Degree in
Pediatrics

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تأثير تعاطي عقار الكورتيزون علي نسبة
الاجسام المضاده للكارديوليبيين (النوع ج) في
المرضي المصابين بالصرع المستعصي العلاج

رسالة

توطئه للحصول على درجة الماجستير في طب الأطفال

مقدمه من

علا محمد ابراهيم سليم

بكالوريوس الطب و ~~Exil YZ~~ (2004)

تحت إشراف

الدكتورة / أمنية فتحى الرشيدى

$$Y\bar{\partial}G\partial\bar{Y}\subset G\partial\bar{U}\bar{\partial}Y$$

Б зC5WIFηξΨ - Ъ žiFND

الدكتورة / رشا حسين على

$$Y \nabla G \dot{u} \in G \quad \text{on } \mathbb{R}^n$$

Безопасность — это не только отсутствие опасности, но и наличие условий для ее предотвращения.

الدكتورة / رانيا حمدي الكباريتي

مدرس الباثولوجيا الاكلينيكية

Б зC5NWFηξΨ - ٭l žiFNδ

كلية الطب

جامعة عين شمس

2010

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List of Abbreviations

aCL-ab	Anti-Cardiolipin antibodies
ACTH	Adrenocorticotrophic hormone
ADHD	Attention-deficit/hyperactivity disorder
AEDS	Antiepileptic Drugs
ALT	Alanine transaminase
aPL-Ab	Anti phospholipid antibodies
APS	Antiphospholipid syndrome
AST	Aspartate transaminase
ATP	Adenosine triphosphate
B2GP 1	Beta 2 glycoprotein 1
BOE	Benign occipital epilepsy
Ca ⁺⁺	calcium
CAE	Childhood Absence Epilepsy
CBC	Complete blood count
CDP-DAG	Cytidinediphosphate-diacylglycerol
Cl ⁻	Chloride
CL	Cardiolipin
CLS	Cardiolipin synthase
CNS	Central Nervous system
CPS	Complex partial seizures
CRH	Corticotropin-releasing hormone
CS	Corticosteroids
CSF	Cerebro Spinal Fluid
CT scan	Computerized tomography scan
ECSWS	Epilepsy with continuous spike waves during slow-wave sleep
EEG	Electro Encephalography
ELISA	Enzyme-linked immunosorbent assay
ENT	Ear, nose and throat
FDA	Food and drugs administration
FMRI	Functional MRI
GABA	Gamma Amino Butyric Acid
GABRA1	alpha 1 subunit of GABA-A receptor
GAD	Glutamic acid decarboxylase
GCA	Giant cell arteritis
GLUR3	Glutamate receptor 3

List of Abbreviations (Cont.)

GSW	Generalized spike wave
GTC	Generalized Tonic clonic
IE	Intractable epilepsy
IED	Interictal epileptiform discharge
IgA	Immunoglobulin A
IGE	Idiopathic generalized epilepsy
IgG	Immunoglobulin G
IgM	Immunoglobulin M
ILAE	International League Against Epilepsy
IS	Infantile spasm
IvIgs	Intravenous immunoglobulins
JAE	Juvenile Absence Epilepsy
JME	Juvenile myoclonic epilepsy
K ⁺	Potassium
LGS	Lennox Gastaut syndrome
LKS	Landeau-Kleffner syndrome
MDR-1	Multiple drug resistance gene
Mg ⁺⁺	Magnesium
MRI	Magnetic resonant Imaging
MRS	Magnetic resonance spectroscopy
MS	Multiple sclerosis
MTLE	Mesial temporal lobe epilepsy
Na ⁺	Sodium
NAO	Nonyl acridine orange
PA	phosphatidic acid
PET	Proton emission tomography
PGP	Phosphatidylglycero phosphate
PLA	phospholipase A2
PLD	Phospholipase D
PLP	Pyridoxal-5-phosphate
PMR	Polymyalgia rheumatica
RE	Rasmussen's encephalitis
SD	Standard deviation
SIADH	Syndrome of inappropriate secretion of antidiuretic hormone
SLE	systemic lupus erythematosus
SPET	Single photon emission computerized tomography

List of Abbreviations (Cont.)

SPS	Simple partial Seizures
SUDEP	Sudden unexpected death in epilepsy
TLE	Temporal lobe epilepsy
VNS	Vagus nerve stimulation
VPA	Sodium valproate
WS	West syndrome
χ^2	Chi-square test

Appendix 1

Questionnaire

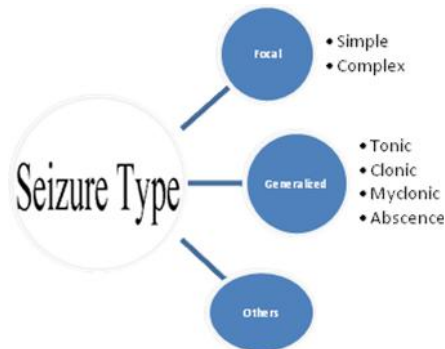
Personal History

- Serial No:
- Age:
- Sex : -male -female
- Consanguinity: +ve -ve

Seizure History

A. Seizure Description

- Age of onset:
- Last seizure occurred on:



- Frequency
- Post Ictal stupor -Yes -No
- Aura -Yes -No
- PPT Factors
- Loss of consciousness -Yes -No
- Enuresis -Yes -No

B. Drugs

Drug 1

- Name:
- Dose: ml/kg/day
- Duration: /month

Drug 2

- Name:
- Dose: ml/kg/day
- Duration: /month

Drug 3

- Name:
- Dose: ml/kg/day
- Duration: /month

Drug 4

- Name:
- Dose: ml/kg/day
- Duration: /month

C. Chalfont severity scale

- Loss of awareness: no=0, yes=1
- Warning (if loss of awareness): no=1,yes=0
- Drop/Spill a held object: no=0,yes=1
- Fall to the ground: no=0,yes=4
- Injury: no=0, yes=20
- Incontinence: no=0,yes=8
- Automatism: no=0

Mild=4

Severe=12

- Convulsion: no=0,yes=12
- Duration of seizure: <10 sec = 0

< 1 min = 1

1-10 min=4

>10 min=16

- Time to return to normal from onset: < 1 min = 0
- 1-10min = 5
- 10-30min=20
- 30-60min=30
- 1-3hr = 50
- >3hr = 100

=0,add 1

If seizure event with total score

If only in sleep, divide score by 2

In each section, score what usually occurs with fractionation as follow:

- No score if it does not occur ,quarter of score if occurs in up to 25% of attacks.
- Half score if occurs in 25-50% of attacks, three quarters if in 50-75%
- Full score if occurs in >75% of attacks

Injury includes tongue biting, laceration and bruising

Spill includes a held object even if the vessel is not dropped

Convulsions is taken to mean clonic jerking of the limbs

Past History

1. Anti natal history

- | | | |
|------------------------|------|-----|
| ▪ Maternal fever | -Yes | -No |
| ▪ Maternal Rash | -Yes | -No |
| ▪ Chronic diseases | -Yes | -No |
| ▪ Placental seperation | -Yes | -No |
| ▪ Pre-eclampsia | -Yes | -No |
| ▪ Fetal distress | -Yes | -No |

2. Natal History

- | | | |
|--------------------|-----------|-------|
| ▪ Place of birth | -Hospital | -Home |
| ▪ Type of delivery | -Normal | -C.S |
| ▪ Preterm labor | -Yes | -No |
| ▪ Obstructed labor | -Yes | -No |

3. Post natal history

- | | | |
|------------|------------|----------|
| ▪ Cry | -Immediate | -Delayed |
| ▪ Cyanosis | -Yes | -No |

Developmental History

- | | | |
|-------------|------|-----|
| ▪ Speech | -Yes | -No |
| ▪ Sphincter | -Yes | -No |
| ▪ Motor | -Yes | -No |

Vaccination

- Appropriate
- Inappropriate

Family History

- | | | |
|--|------|-----|
| ▪ Order of birth | | |
| ▪ Family history of epilepsy | -Yes | -No |
| ▪ Family history of heredofamilial disease | -Yes | -No |

Examination

Neurological Examination

- Orientation
- Mentality
- Gait
- Cranial nerves
- Sensory examination
- Motor examination
- Coordination

General Examination

- | | |
|-----------------------|----|
| ▪ Weight: | kg |
| ▪ Height: | cm |
| ▪ Head Circumference: | cm |
| ▪ Blood pressure | |
| ▪ Temperature | |
| ▪ Respiratory rate | |

Investigation

- 1-EEG report:
- 2-CT,MRI report:
- 3-Serum level of aCL-ab:

Steroid Therapy

- | | |
|-------------------------------|-------------|
| ▪ Onset: | |
| ▪ Dose: | Total Dose: |
| ▪ Start of tapering: | |
| ▪ Stop: | |
| ▪ Adverse effect encountered: | |

Post therapy assessment

- 1-Seizure Frequency
- 2-Chalfont Severity Scale
- 3-EEG report
- 4- Serum level of aCL-ab